

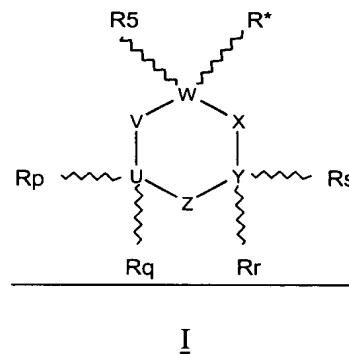


## LISTING OF CLAIMS

- 1 - (currently amended)

A method for the prevention, treatment or relief of a state, disorder or of a condition resulting from hyperphosphorylation of microtubule protein *tau* selected from parkinsonism-dementia, argyrophilic grain dementia, British type amyloid angiopathy, corticobasal degeneration, dementia pugilistica, autism with self-injury behavior, Down's syndrome, frontotemporal dementia with parkinsonism linked to chromosome 17, Gerstmann-Straussler-Scheinker disease, Hallervorden-Spatz disease, inclusion body myositis, multiple system atrophy, myotonic dystrophy, Niemann-Pick type C neurodegenerative storage disease, Pick's disease, presenile dementia, prion protein cerebral amyloid angiopathy, progressive supranuclear palsy, progressive subcortical gliosis, post-encephalitic parkinsonism, subacute sclerosing panencephalitis, tangle only dementia, spasticity, AIDS dementia, neuropathic pain, cerebral ischemia, epilepsy, glaucoma, hepatic encephalopathy, multiple sclerosis, stroke, tardive dyskinesia, drug tolerance, opiate/alcohol dependence, thermal hyperalgesia, mechanical allodynia, malaria, Borna virus, and Hepatitis C, which method is useful for: (1) preventing or delaying the appearance of clinical symptoms and parameters such as neurodegeneration of the state, disorder or condition developing in a mammal that may be afflicted with or predisposed to the state, disorder or condition but does not yet experience or display clinical symptoms and parameters of the state, disorder or condition, (2) inhibiting the state, disorder or condition, i.e., arresting or reducing the development of the disease or at least one clinical symptom and parameter thereof, or (3) relieving the disease, i.e.,

causing regression of the state, disorder or condition or at least one of its clinical symptoms and parameters, such method comprising the step of administering, to a patient in need thereof, an effective amount of an aminocyclohexane or an aminoalkylcyclohexane a compound selected from those of formula I



wherein:

- $R^*$  is  $-(A)_n-(CR^1R^2)_m-NR^3R^4$ ,
- $n+m = 0, 1, \text{ or } 2$ ,
- $A$  is selected from linear or branched lower alkyl ( $C_1-C_6$ ), linear or branched lower alkenyl ( $C_2-C_6$ ), and linear or branched lower alkynyl ( $C_2-C_6$ ),
- $R^1$  and  $R^2$  are independently selected from hydrogen, linear or branched lower alkyl ( $C_1-C_6$ ), linear or branched lower alkenyl ( $C_2-C_6$ ), and linear or branched lower alkynyl ( $C_2-C_6$ ).

- R<sup>3</sup> and R<sup>4</sup> are independently selected from hydrogen, linear or branched lower alkyl (C<sub>1</sub>-C<sub>6</sub>), linear or branched lower alkenyl (C<sub>2</sub>-C<sub>6</sub>), and linear or branched lower alkynyl (C<sub>2</sub>-C<sub>6</sub>), or together form alkylene (C<sub>2</sub>-C<sub>10</sub>) or alkenylene (C<sub>2</sub>-C<sub>10</sub>) or together with the N form a 3-7-membered azacycloalkane or azacycloalkene, including substituted (alkyl (C<sub>1</sub>-C<sub>6</sub>), alkenyl (C<sub>2</sub>-C<sub>6</sub>)) 3-7-membered azacycloalkane or azacycloalkene,
- R<sub>p</sub>, R<sub>q</sub>, R<sub>r</sub>, and R<sub>s</sub> are independently selected from hydrogen, linear or branched lower alkyl (C<sub>1</sub>-C<sub>6</sub>), linear or branched lower alkenyl (C<sub>2</sub>-C<sub>6</sub>), linear or branched lower alkynyl (C<sub>2</sub>-C<sub>6</sub>), cycloalkyl (C<sub>3</sub>-C<sub>6</sub>) and phenyl, and one of R<sub>p</sub> and R<sub>q</sub>, and one of R<sub>r</sub> and R<sub>s</sub> combine together to represent a lower alkylene -(CH<sub>2</sub>)<sub>x</sub>- bridge wherein x is 2-5, inclusive, which alkylene bridge, in turn, combines with R<sup>5</sup> to form an additional lower alkylene -(CH<sub>2</sub>)<sub>y</sub>- bridge, wherein y is 1-3, inclusive,
- U-V-W-X-Y-Z is selected from
  - cyclohexane,
  - cyclohex-2-ene,
  - cyclohex-3-ene,
  - cyclohex-1,4-diene,
  - cyclohex-1,5-diene,
  - cyclohex-2,4-diene, and
  - cyclohex-2,5-diene,

and its optical isomers and pharmaceutically-acceptable acid or base addition salts thereof.

- 2 - (canceled)

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- 3 - (canceled)

- 4 - (currently amended)

The method of claim [[3]] 1, wherein the aminocyclohexane compound of formula I is selected from:

1-amino adamantane,

1-amino-3-phenyl adamantane,

1-amino-methyl-adamantane,

1-amino-3,5-dimethyl adamantane,

1-amino-3-ethyl adamantane,

1-amino-3-isopropyl adamantane,

1-amino-3-n-butyl adamantane,

1-amino-3,5-diethyl adamantane,

1-amino-3,5-diisopropyl adamantane,

1-amino-3,5-di-n-butyl adamantane,

1-amino-3-methyl-5-ethyl adamantane,

1-N-methylamino-3,5-dimethyl adamantane,

1-N-ethylamino-3,5-dimethyl adamantane,

1-N-isopropyl-amino-3,5-dimethyl adamantane,  
1-N,N-dimethyl-amino-3,5-dimethyl adamantane,  
1-N-methyl-N-isopropyl-amino-3-methyl-5-ethyl adamantane,  
1-amino-3-butyl-5-phenyl adamantane,  
1-amino-3-pentyl adamantane,  
1-amino-3,5-dipentyl adamantane,  
1-amino-3-pentyl-5-hexyl adamantane,  
1-amino-3-pentyl-5-cyclohexyl adamantane,  
1-amino-3-pentyl-5-phenyl adamantane,  
1-amino-3-hexyl adamantane,  
1-amino-3,5-dihexyl adamantane,  
1-amino-3-hexyl-5-cyclohexyl adamantane,  
1-amino-3-hexyl-5-phenyl adamantane,  
1-amino-3-cyclohexyl adamantane,  
1-amino-3,5-dicyclohexyl adamantane,  
1-amino-3-cyclohexyl-5-phenyl adamantane,  
1-amino-3,5-diphenyl adamantane,  
1-amino-3,5,7-trimethyl adamantane,  
1-amino-3,5-dimethyl-7-ethyl adamantane,  
1-amino-3,5-diethyl-7-methyl adamantane,  
1-amino-3-methyl-5-propyl adamantane,  
1-amino-3-methyl-5-butyl adamantane,  
1-amino-3-methyl-5-pentyl adamantane,

1-amino-3-methyl-5-hexyl adamantane,  
1-amino-3-methyl-5-cyclohexyl adamantane,  
1-amino-3-methyl-5-phenyl adamantane,  
1-amino-3-ethyl-5-propyl adamantane,  
1-amino-3-ethyl-5-butyl adamantane,  
1-amino-3-ethyl-5-pentyl adamantane,  
1-amino-3-ethyl-5-hexyl adamantane,  
1-amino-3-ethyl-5-cyclohexyl adamantane,  
1-amino-3-ethyl-5-phenyl adamantane,  
1-amino-3-propyl-5-butyl adamantane,  
1-amino-3-propyl-5-pentyl adamantane,  
1-amino-3-propyl-5-hexyl adamantane,  
1-amino-3-propyl-5-cyclohexyl adamantane,  
1-amino-3-propyl-5-phenyl adamantane,  
1-amino-3-butyl-5-pentyl adamantane,  
1-amino-3-butyl-5-hexyl adamantane,  
1-amino-3-butyl-5-cyclohexyl adamantane,  
and their acid addition compounds.

- 5 - (currently amended)

The method of claim 1, wherein the aminocyclohexane compound of formula I is  
memantine or neramexane.

- 6 - (canceled)

- 7 - (canceled)

- 8 - (canceled)

- 9 - (canceled)

- 10 - (currently amended)

The method of claim 1, wherein ~~such state, disorder, or condition results from hyperphosphorylation of microtubule protein tau, and wherein the state, disorder or condition is selected from the group~~ the condition is selected from: frontotemporal dementia with parkinsonism linked to chromosome 17 (FTDP-17), corticobasal degeneration (CBD), progressive supranuclear palsy (PSP), progressive subcortical gliosis (PSG), Pick's disease (PiD), Niemann-Pick type C (NPC) neurodegenerative storage disease, and Argyrophilic Grain disease, ~~such method comprising the step of administering, to a patient in need thereof, an effective amount of~~ and the compound of formula I is memantine or neramexane.

- 11 - (canceled)

- 12 - (canceled)

- 13 - (currently amended)

The method of claim [[12]] 5, wherein memantine ~~or naramexane~~ is administered in the amount of 5 to 200 mg/kg.

- 14 - (canceled)

- 15 - (canceled)

- 16 - (canceled)